UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/887,787	06/22/2001	Myung M. Bae	POU920010091US1	7659

7590 10/06/2004	EXAMINER
	PHAM, HUNG Q

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ART UNIT	PAPER NUMBER
2162	

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>*22 June 2001*</u>.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
    closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-16* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-16* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a) ☐ All   b) ☐ Some * c) ☐ None of:
     1. ☐ Certified copies of the priority documents have been received.
     2. ☐ Certified copies of the priority documents have been received in Application No. _____.
     3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>*01/17/02& 01/17/03*</u>.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1.   The information disclosure statement (IDS) submitted on 01/17/2002 and

01/17/2003 was filed before the mailing date of the first Office Action. The submission

is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information

disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of
making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
set forth the best mode contemplated by the inventor of carrying out his invention.

3.   **Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as failing to
comply with the written description requirement. The claim(s) contains subject
matter, which was not described in the specification in such a way as to
reasonably convey to one skilled in the relevant art that the inventor(s), at the
time the application was filed, had possession of the claimed invention.**

Regarding to claim 8, the claimed *all of said log file entries are of the same length*

was not described in the specification.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

5.   **Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Carlson [USP 6,697,849 B1].

Regarding to claims 14 and 15, Carlson teaches a logging facility in an

application server for logging messages generated by application-level and system-level

services (Col. 37-Lines 20-28) by using a user interface for managing message logging,

and specifying the types of messages to log. As shown in FIG. 2B (Col. 7-8) is *a central*

processing unit (Application Server 108), *a random access memory for storing data and*

programs for execution by said central processing unit (Col. 3, Lines 52-65), *a nonvolatile*

storage device (database 110). As shown in FIG. 20, the Message Type field, specifies

which types of messages should be logged, includes informational messages, warnings

and errors (Col. 37, Lines 30-55). The server may use a log buffer to store messages

before they are written to an ASCII file, and/or database logs (Col. 38, Lines 24-26). The

buffer is written to an ASCII file when either the buffer interval times out or the number

of entries in the buffer exceeds the maximum number allowed (Col. 38, Lines 24-31).

When a log file is rotated, the existing log file may be closed and moved to an archive

location, and a new log file may be created for recording further log events (Col. 38,

Lines 50-57). As seen, a Message Type, such as informational messages, or

warnings/errors, specifies *an importance level*, and the ASCII file *receives log file entries*

having an importance level associated therewith, and *stores said log file entries in a first*

plurality of files. Returning back to FIG. 20, the user interface as in FIG. 20 also

indicates the step of *selecting within said first plurality of files a particular file within said*

first plurality of files. The ASCII file as in FIG. 20 is selected based on *log event history*

preservation as disclosed by Carlson as in Col. 38, Lines 32-40. Carlson does not

explicitly teach the plurality of files is on *nonvolatile storage device*. However, as taught by

Carlson, when a log file is rotated, the existing log file may be closed and moved to an

archive location, and a new log file may be created for recording further log events (Col.

38, Lines 50-57). As seen, an archive location, obviously, is a location on a tape or disk

used for long-term storage, or a *nonvolatile storage device*. It would have been obvious

for one of ordinary skill in the art at the time the invention was made to use a nonvolatile

storage for archiving ASCII log file in order to backup the log files.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

7.   **Claims 1-13 and 16 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Carlson [USP 6,697,849 B1] in view of Becker et al. [USP

6,460,049 B1].

Regarding to claim 1, Carlson teaches a logging facility in an application server

for logging messages generated by application-level and system-level services (Col. 37-

Lines 20-28) by using a user interface for managing message logging, and specifying

the types of messages to log. As shown in FIG. 20, the Message Type field, specifies

which types of messages should be logged, includes informational messages, warnings

and errors (Col. 37, Lines 30-55). As seen, a Message Type, such as informational

messages, or warnings/errors, specifies *an importance level for a received log entry* is

determined. The server may use a log buffer to store messages before they are written

to an ASCII file, and/or database logs (Col. 38, Lines 24-26). The buffer is written to an

ASCII file when either the buffer interval times out or the number of entries in the buffer

exceeds the maximum number allowed (Col. 38, Lines 24-31). As seen, the ASCII file

for storing warnings/errors messages is considered as *a first file* if *importance level* is

warning and error, and the ASCII file for storing informational messages is considered

as *a second file* if *importance level* is informational. In different words, the technique of

using ASCII files for storing informational, and warnings/ errors messages indicates the

step of *storing said received log entry in a first file if said importance level* is warnings and

errors *and in a second file otherwise*. Carlson further discloses that the application server

logging facility may be configured to rotate ASCII log files at scheduled time intervals.

When a log file is rotated, the existing log file may be closed and moved to an archive

location, and a new log file may be created for recording further log events (Col. 38,

Lines 50-57). As seen, the storage of a warning/error ASCII file is switched from the

existing ASCII log file as *first file* to a corresponding new ASCII file as *alternate first file*

at scheduled time intervals as *predetermined capacity*, and, obviously, the rotation will occur to replace the existing one at another scheduled time intervals, wherein the file name is still the same, and an informational ASCII file is switched from the existing ASCII log file as *second file* to a corresponding new ASCII file as *alternate second file* at scheduled time intervals as *predetermined capacity*, and, obviously, the rotation will occur to replace the existing one at another scheduled time intervals, wherein the file name is still the same. In short, the rotation of a warning/error ASCII file, and an informational ASCII file indicates the steps of *switching storage from said first file to an alternate first file in response to said first file reaching its predetermined capacity, switching storage from said alternate first file to said first file in response to said alternate first file reaching its predetermined capacity, switching storage from said second file to an alternate second file in response to said second file reaching its predetermined capacity, switching storage from said alternate second file to said second file in response to said alternate second file reaching its predetermined capacity*. Carlson does not explicitly teach *a predetermined threshold* is used as an attribute of the importance level for ranking the received messages. However, as further disclosed by Carlson, messages are categorized into Information message based on status update, and Warning/Error message based on an indication attribute and a critical failure attribute, and a user interface is provided to specify the types of messages to log. Thus, instead of using attributes for categorizing the messages, obviously, a range of consecutive integer, and a predetermined threshold could be used to sort the message. The technique of using a range of consecutive integer to represent the importance level and to determine a threshold for sorting is

taught by Becker (Becker, Col. 10, Lines 21-42). Therefore, it would have been obvious

for one of ordinary skill in the art at the time the invention was made to modify the

Carlson technique by using a predetermined threshold for categorize the message as

taught by Becker in order to let the user define a log file based on a level range of a

problem or a critical failure.

Regarding to claim 2, Carlson teaches a logging facility in an application server

for logging messages generated by application-level and system-level services (Col. 37-

Lines 20-28) by using a user interface for managing message logging, and specifying

the types of messages to log. As shown in FIG. 20, the Message Type field, specifies

which types of messages should be logged, includes informational messages, warnings

and errors (Col. 37, Lines 30-55). As seen, a Message Type, such as informational

messages, or warnings/errors, specifies *an importance level for a received log entry* is

determined. The server may use a log buffer to store messages before they are written

to an ASCII file, and/or database logs (Col. 38, Lines 24-26). The buffer is written to an

ASCII file when either the buffer interval times out or the number of entries in the buffer

exceeds the maximum number allowed (Col. 38, Lines 24-31). The ASCII log files could

be rotated at scheduled time intervals. When a log file is rotated, the existing log file

may be closed and moved to an archive location, and a new log file may be created for

recording further log events (Col. 38, Lines 50-57). As seen, the received

warnings/errors entries are stored in a first pair of files if importance level is warnings

and errors, the storage is rotated between these two files at scheduled time intervals as

predetermined capacity, and the received informational entries are stored in a second pair

of files if importance level is informational, the storage is rotated between these two files

at scheduled time intervals as *predetermined capacity*. In short, the rotation of a

warning/error ASCII file, and an informational ASCII file indicates the steps of *storing*

said received log entry in alternating ones of a first file pair if said importance level is

warnings and errors, *said alternation occurring as each file in the first pair reaches a*

predetermined capacity, and *storing said received log entry in alternating ones of a second file*

pair if said importance level is informational, *said alternation occurring as each file in the*

second pair reaches a predetermined capacity. Carlson does not explicitly teach *a*

predetermined threshold is used as an attribute of the importance level for ranking the

received messages. However, as further disclosed by Carlson, messages are

categorized into Information message based on status update, and Warning/Error

message based on an indication attribute and a critical failure attribute, and a user

interface is provided to specify the types of messages to log. Thus, instead of using

attributes for categorizing the messages, obviously, a range of consecutive integer, and

a predetermined threshold could be used to sort the message. The technique of using a

range of consecutive integer to represent the importance level and to determine a

threshold for sorting is taught by Becker (Becker, Col. 10, Lines 21-42). Therefore, it

would have been obvious for one of ordinary skill in the art at the time the invention was

made to modify the Carlson technique by using a predetermined threshold for

categorize the message as taught by Becker in order to let the user define a log file

based on a level range of a problem or a critical failure.

Regarding to claim 3, Carlson teaches a logging facility in an application server

for logging messages generated by application-level and system-level services (Col. 37-

Lines 20-28) by using a user interface for managing message logging, and specifying

the types of messages to log. As shown in FIG. 20, the Message Type field, specifies

which types of messages should be logged, includes informational messages, warnings

and errors (Col. 37, Lines 30-55). As seen, a Message Type, such as informational

messages, or warnings/errors, specifies *an importance level for a received log entry* is

determined. The server may use a log buffer to store messages before they are written

to an ASCII file, and/or database logs (Col. 38, Lines 24-26). The buffer is written to an

ASCII file when either the buffer interval times out or the number of entries in the buffer

exceeds the maximum number allowed (Col. 38, Lines 24-31). The ASCII log files could

be rotated at scheduled time intervals. When a log file is rotated, the existing log file

may be closed and moved to an archive location, and a new log file may be created for

recording further log events (Col. 38, Lines 50-57). As seen, the received

warnings/errors entries are stored in a selected file of a first plurality of files if

importance level is warnings and errors, the storage is rotated between these files at

scheduled time intervals as *predetermined capacity*, and the received informational

entries are stored in a selected file of a first plurality of files if importance level is

informational, the storage is rotated between these files at scheduled time intervals as

predetermined capacity. In short, the rotation of a warning/error ASCII file, and an

informational ASCII file indicates the steps of *storing said received log entry in a select file*

of a first plurality of files if said importance level is warnings and errors, *said selection within said first plurality occurring in cyclic rotation as each file in said first plurality of files reaches a predetermined capacity*, and *storing said received log entry in a select file of a second plurality of files if said importance level is* informational, *said selection within said second plurality occurring in cyclic rotation as each file in said second plurality of files reaches a predetermined capacity*. Carlson does not explicitly teach *a predetermined threshold* is used as an attribute of the importance level for ranking the received messages. However, as further disclosed by Carlson, messages are categorized into Information message based on status update, and Warning/Error message based on an indication attribute and a critical failure attribute, and a user interface is provided to specify the types of messages to log. Thus, instead of using attributes for categorizing the messages, obviously, a range of consecutive integer, and a predetermined threshold could be used to sort the message. The technique of using a range of consecutive integer to represent the importance level and to determine a threshold for sorting is taught by Becker (Becker, Col. 10, Lines 21-42). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Carlson technique by using a predetermined threshold for categorize the message as taught by Becker in order to let the user define a log file based on a level range of a problem or a critical failure.

Regarding to claim 4, Carlson and Becker teaches all the claimed subject matters as discussed in claim 3, but does not explicitly teach the *importance level is*

expressed as a desired duration of retention. However, instead of using status update,

indication attribute and a critical failure attribute for categorizing the message,

obviously, the level of important could be expressed as duration of retaining the

message, for example, a warning message is just an indication and should not be

archived for a long period of time. It would have been obvious for one of ordinary skill in

the art at the time the invention was made to modify the Carlson and Becker technique

by using duration for expressing message in order to archive the log file.

Regarding to claim 5, Carlson and Becker teaches all the claim subject matters

as discussed in claim 3, Carlson further discloses *the predetermined capacity for said files*

in said first plurality of files is the same for all of the files in said first plurality of files

(Carlson, FIG. 20).

Regarding to claim 6, Carlson and Becker teaches all the claim subject matters

as discussed in claim 3, Carlson further discloses *the predetermined capacity for said files*

in said second plurality of files is the same for all of the files in said second plurality of files

(Carlson, FIG. 20).

Regarding to claim 7, Carlson teaches all the claim subject matters as discussed

in claim 3, Carlson further discloses the step of *generating a report from a plurality of log*

file entries retrieved from one of said first or second plurality of files in the same time order in

which the log entries were stored (Carlson, Col. 38, Lines 32-40 and 50-64).

Regarding to claim 8, Carlson and Becker teaches all the claim subject matters
as discussed in claim 3, Carlson further discloses *all of said log file entries are of the same
length* (Carlson, FIG. 20).

Regarding to claim 9, Carlson and Becker teaches all the claim subject matters
as discussed in claim 3, Carlson further discloses *the number of files in said first plurality
of files is two* (Carlson, Col. 38, Lines 50-64).

Regarding to claim 10, Carlson and Becker teaches all the claim subject matters
as discussed in claim 3, Carlson further discloses *the number of files in said second
plurality of files is two* (Carlson, Col. 38, Lines 50-64).

Regarding to claim 11, Carlson and Becker teaches all the claim subject matters
as discussed in claim 3, but does not explicitly teach *the number of files in said first
plurality of files is the same as the number of files in said second plurality of files*. However,
as discussed in claim 3, when a log file is rotated, the existing log file may be closed
and moved to an archive location, and a new log file may be created for recording
further log events (Col. 38, Lines 50-57). Thus, by using two files, existing log file and a
new log file when the existing one moved to an archive location, and warnings/errors log
file is the same with informational log file. Therefore, it would have been obvious for one

of ordinary skill in the art at the time the invention was made to include the feature of

number of files into the Carlson method in order to manage message logging.

Regarding to claim 12, Carlson and Becker teaches all the claim subject matters

as discussed in claim 3, Carlson further discloses *the number of distinct importance level*

is two (Carlson, Col. 37, Lines 30-45).

Regarding to claim 13, Carlson and Becker teaches all the claim subject matters

as discussed in claim 3, Carlson further discloses *log file entries include a time stamp*

(Carlson, Col. 38, Lines 32-40).

Regarding to claim 16, Carlson teaches a logging facility in an application server

for logging messages generated by application-level and system-level services (Col. 37-

Lines 20-28) by using a user interface for managing message logging, and specifying

the types of messages to log. As shown in FIG. 20, the Message Type field, specifies

which types of messages should be logged, includes informational messages, warnings

and errors (Col. 37, Lines 30-55). As seen, a Message Type, such as informational

messages, or warnings/errors, specifies *an importance level for a received log entry* is

determined. The server may use a log buffer to store messages before they are written

to an ASCII file, and/or database logs (Col. 38, Lines 24-26). The buffer is written to an

ASCII file when either the buffer interval times out or the number of entries in the buffer

exceeds the maximum number allowed (Col. 38, Lines 24-31). The ASCII log files could

be rotated at scheduled time intervals. When a log file is rotated, the existing log file

may be closed and moved to an archive location, and a new log file may be created for

recording further log events (Col. 38, Lines 50-57). As seen, the received

warnings/errors entries are stored in a selected file of a first plurality of files if

importance level is warnings and errors, the storage is rotated between these files at

scheduled time intervals as *predetermined capacity*, and the received informational

entries are stored in a selected file of a first plurality of files if importance level is

informational, the storage is rotated between these files at scheduled time intervals as

predetermined capacity. In short, the rotation of a warning/error ASCII file, and an

informational ASCII file indicates the steps of *storing said received log entry in a select file*

of a first plurality of files if said importance level is warnings and errors, *said selection*

within said first plurality occurring in cyclic rotation as each file in said first plurality of files

reaches a predetermined capacity, and *storing said received log entry in a select file of a*

second plurality of files if said importance level is informational, *said selection within said*

second plurality occurring in cyclic rotation as each file in said second plurality of files

reaches a predetermined capacity. The purpose of warning/error ASCII file, and

informational ASCII file is *to preserve log event file histories as long as possible* (Col. 38,

Lines 32-40 and 54-56). Carlson does not explicitly teach *a predetermined threshold* is

used as an attribute of the importance level for ranking the received messages.

However, as further disclosed by Carlson, messages are categorized into Information

message based on status update, and Warning/Error message based on an indication

attribute and a critical failure attribute, and a user interface is provided to specify the

types of messages to log. Thus, instead of using attributes for categorizing the messages, obviously, a range of consecutive integer, and a predetermined threshold could be used to sort the message. The technique of using a range of consecutive integer to represent the importance level and to determine a threshold for sorting is taught by Becker (Becker, Col. 10, Lines 21-42). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Carlson technique by using a predetermined threshold for categorize the message as taught by Becker in order to let the user define a log file based on a level range of a problem or a critical failure.

Conclusion

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q PHAM whose telephone number is 703-605-4242. As of October 21, 2004, new number should be (571) 272-4040. The examiner can normally be reached on Monday-Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 703-305-9790. As of October 21, 2004, new number should be (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

9.   Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Examiner Hung Pham
September 22, 2004

SHAHID ALAM
PRIMARY EXAMINER